

### **REMARKS**

Applicant replies to the Final Office Action dated August 18, 2006 within three months. Claims 1-4 were pending in the application and the Examiner rejects claims 1-4. Support for the amendments may be found in the originally filed specification, claims, and figures. No new matter has been introduced by these amendments. Reconsideration of this application is respectfully requested.

The Examiner rejects claims 1 and 2 under 35 U.S.C. 102(e) as being anticipated by Takano et al., U.S. Patent No. 6,114,839 ("Takano"). Applicant respectfully traverses this rejection.

The Examiner asserts that although Takano teaches that a temperature value is detected and used to determine leakage and interrupt charging, the temperature value is measured using a thermistor (see col. 3, lines 13 of Takano). Since thermistor measures temperature changes by relying on a change in its resistance, the Examiner asserts that although Takano only explicitly detects temperature value, inherently detecting temperature value also detects the resistance of the thermistor **2a**. Applicant respectfully asserts that "[i]nherency may not be established by probabilities or possibilities. The mere fact that a certain thing *may* result from a given set of circumstances is not sufficient. . . . " (quoting *In re Oelrich*, 666 F.2d 578, 581 (CCPA 1981))

Nonetheless, to expedite prosecution of this application, Applicant amends claim 1 to further differentiate from the cited reference by reciting, "wherein the liquid detection section controls the control section based on impedance or resistance value detected between two electrically separated patterns". The present invention discloses that a detected pattern **72** is connected to a liquid detection section **62** and a B+ input/output pattern **74** is provided adjacent to the detected pattern **72**. Further, the detected pattern **72** and the B+ input/output pattern **74** are in close proximity so that the distance therebetween is about 0.1mm, but are electrically separated. Accordingly, in a normal state, the impedance (or resistance value) between the detected pattern **72** and the B+ input/output pattern **74** is a value approaching infinity.

However, the attachment of liquid **76** reduces the impedance (or resistance value) between the detected pattern **72** and the B+ input/output pattern **74** to several tens to several hundreds of kilo-ohms. Therefore, by detecting the reduction in this impedance (or resistance value), the liquid detection section **62** detects infiltration or generation of the liquid in the

secondary battery 10 or in a battery pack in which the secondary battery 10 is installed (see, for example, paragraphs [0069]-[0070] of the original specification as filed).

In contrast, Takano discloses that the microprocessor 50 controls the switching circuit 20 to stop charging the secondary batteries 2e based on the temperature detection signal Vin supplied to the microprocessor when an error condition occurs (such as leakage), whereby the temperature detection signal Vin is determined in accordance with the temperature of the secondary batteries 2e (see, for example, col. 3, lines 46-58 of Takano). Therefore, even if the temperature of the secondary batteries 2e is detected by the thermistor 2a by relying on a change in the resistance of the thermistor 2a, Takano has not been found to teach or suggest that the switching circuit 20 is controlled to interrupt charging/discharging of the secondary batteries 2e based on an impedance or resistance value detected between two electrically separated patterns.

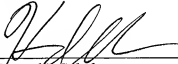
Accordingly, Takano does not disclose or suggest at least “wherein the liquid detection section controls the control section based on impedance or resistance value detected between two electrically separated patterns,” as recited by independent claim 1. As such, the rejection on claim 1 should be withdrawn since Takano fails to teach each and every feature of claim 1. Moreover, claim 2 depends from independent claim 1, so Applicant asserts that claim 2 is differentiated from the cited reference for at least the reasons set forth above, in addition to its own respective features.

The Examiner rejects claims 3 and 4 under 35 U.S.C. 103(a) as being obvious over Takano in view of Darmawaskita, U.S. Patent No. 6,184,659 (“Darmawaskita”). Applicant respectfully traverses this rejection. Applicant asserts that Darmawaskita fails to make up for the deficiencies in Takano to arrive at claim 1, so Applicant asserts that neither Takano, Darmawaskita, nor any combination thereof, disclose or suggest at least “wherein the liquid detection section controls the control section based on impedance or resistance value detected between two electrically separated patterns,” as recited by independent claim 1. Moreover, claims 3 and 4 depend from independent claim 1, so Applicant asserts that claims 3 and 4 are differentiated from the cited references for at least the reasons set forth above, in addition to their own respective features.

In view of the above remarks and amendments, Applicant respectfully submits that all pending claims properly set forth that which Applicant regards as its invention and are allowable over the cited references. Accordingly, Applicant respectfully requests allowance of the pending

claims. The Examiner is invited to telephone the undersigned at the Examiner's convenience, if that would help further prosecution of the subject Application. Applicant authorizes and respectfully requests that any fees due be charged to Deposit Account No. 19-2814.

Respectfully submitted,



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